

Appln. No. 10/774, 886  
 Amendment Accompanying Request for  
 Continued Examination filed March 17, 2006  
 Response to Office Action mailed October 18, 2005

### LISTING OF CLAIMS:

This listing of claims will replace all prior versions, and listing, of claims in the application.

1-36 (Previously Cancelled)

37. (Currently Amended) A data transmission cable adapted for use in a system for monitoring and determining a connection pattern of data ports, said data transmission cable comprising:

one or more data conductors for transmitting data from a first data port to a second data port, and a dedicated signal conductor for transmitting a monitoring signal along said signal conductor;

a first jack at one each end of said data transmission cable each and a second jack at the other end of said data transmission cable, said first and second jacks adapted to mate with a corresponding sockets of a the first and second data ports wherein, when the first and second jacks are mated to the corresponding sockets of the first and second data ports, said one or more data conductors are coupled to associated contacts within said first and second data ports to transmit data between said first and second data ports along said one or more data conductors; and

an a first adapter jacket at each one end of said data transmission cable and a second adapter jacket at the other end of said data transmission cable, each said first adapter jacket comprising a first electrical contact to said data transmission cable, and said second adapter jacket comprising a second electrical contact, said signal conductor extending between said first and second electrical contacts; each said first electrical contact adapted to make electrical contact with a corresponding first socket contact proximate said first data port when the

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first jack is mated with the socket, of said first data port, and said second electrical contact adapted to make electrical contact with a second socket contact proximate said second data port when the second jack is mated with the socket of said second data port, wherein said first and said second socket contacts are electrically coupled to a microprocessor, said microprocessor adapted to transmit said monitoring signal to said first socket contact, said monitoring signal passing from said first socket contact to said first electrical contact, along said signal conductor to said second electrical contact, from said second electrical contact to said second socket contact, and from said second contact back to said microprocessor, said microprocessor utilizing said monitoring signal to automatically monitor and determine a connection pattern of data ports and a conductor extending between, and electrically connected to, each adapter jacket electrical contact.

38. (Previously Presented) The data transmission cable according to claim 37, wherein each adapter jackets is separate from said data transmission cable and is constructed so as to be retrofit over an existing data transmission cable.

39. (Previously Presented) The data transmission cable according to claim 37, wherein each electrical contact comprises a contact pin slidably engaged in a barrel and a spring adapted to fit within said barrel and designed to support said contact pin and provide tension to said contact pin when said contact pin makes electrical contact with a corresponding socket contact.

40. (Previously Presented) The data transmission cable according to claim 37, wherein said conductor is a copper wire.

41. (Previously Presented) The data transmission cable according to claim 39, wherein said conductor is electrically isolated from said data transmission cable.

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42. (Previously Presented) The data transmission cable according to claim 37, wherein said data transmission cable is a conventional multiconductor cable.

43. (Previously Presented) The data transmission cable according to claim 37, wherein each jack is selected from the group of jacks consisting of RJ45 jacks, RJ11 jacks, RJ12 jacks, RJ14 jacks, RJ25 jacks, RJ48 jacks, BNC jacks, SC jacks and ST jacks.

44. (Currently Amended) An adapter jacket for use with a data transmission cable, said adapter jacket adapted to be positioned proximate ~~anto one~~ end of said data transmission cable, ~~said adapter jacket comprising an electrical contact and a conductor electrically connected to said electrical contact~~ adapted to make electrical contact with a socket contact that is electronically coupled to a microprocessor when said data transmission cable is mated with a corresponding socket of a data port, said microprocessor adapted to transmit a monitoring signal to the electrical contact and utilizing said monitoring signal to automatically monitor and determine a connection pattern of data ports.

45. (Cancelled) ~~The adapter jacket according to claim 44, wherein said electrical contact is positioned so as to electrically contact a corresponding socket contact when said data transmission cable is mated with a corresponding socket of a data port.~~

46. (Previously Presented) The adapter jacket according to claim 44, wherein said electrical contact comprises a movable contact pin slidably engaged within said adapter jacket.

47. (Previously Presented) The adapter jacket according to claim 46 further comprising a barrel and a spring adapted to fit within said barrel and designed to support said contact pin and provide tension to said contact pin when said contact pin makes electrical contact with a corresponding socket contact.

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48. (Previously Presented) The adapter jacket according to claim 44, wherein said data transmission cable is a conventional multiconductor cable having a plurality of conductors therein and wherein said conductor connected to said contact is independent of said plurality of conductors within said multiconductor cable.

49. (Currently Amended) A data transmission cable adapted for use in a system for monitoring and determining a connection pattern of data ports, said data transmission cable comprising:

one or more data conductors for transmitting data from a first data port to a second data port and a dedicated signal conductor for transmitting a monitoring signal along said signal conductor;

a first jack at each one end of said data transmission cable; and a second jack at the other each said first and second jacks adapted to mate with a corresponding sockets of the first and second a data ports wherein, when the first and second jacks are mated to the corresponding sockets of the first and second data ports, said one or more data conductors are coupled to associated contacts within said first and second data ports to transmit data between said first and second data ports along said one or more data conductors; and

an first adapter jacket at each one end of said data transmission cable; and a second adapter jacket at the other end of said data transmission cable, each said first adapter jacket comprising an electrical contact external to said data transmission cable and adapted to make electrical contact with a corresponding socket contact when the jack is mated with the socket, wherein said electrical contacts a first electrical contract and said second adapter jacket comprising a second electrical contact, said signal conductor extending between said first and second electrical contacts; wherein each of said first and second electrical contacts comprises a

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contact pin slidably engaged in a barrel and a spring adapted to fit within said barrel and designed to support said contact pin and provide tension to said contact pin when said contact pin makes electrical contact with the corresponding socket; ~~and a conductor extending between, and electrically connected to, each contact pin~~ said first electrical contact adapted to make electrical contact with a first socket contact proximate said first data port when the first jack is mated with the socket of said first data port, and said second electrical contact adapted to make electrical contact with a second socket contact proximate said second data port when the second jack is mated with the socket of said second data port; wherein said first and second socket contacts are electrically coupled to a microprocessor, said microprocessor adapted to transmit said monitoring signal to said first socket contact, said monitoring signal passing from said first socket contact to said first electrical contact, along said signal conductor to said second electrical contact, from said second electrical contact to said second socket contact, and from said second contact back to said microprocessor, said microprocessor utilizing said monitoring signal to automatically monitor and determine a connection pattern of data ports.

50. (Currently Amended) A jack adapted to mate with a corresponding socket of a data port in a system for monitoring and determining a connection pattern of data ports, said jack comprising:

a barrel internal to said jack;

a contact pin slidably engaged in said barrel and adapted to make electrical contact with a corresponding socket contact that is electronically coupled to a microprocessor said microprocessor adapted to transmit a monitoring signal to the socket contact and utilizing said monitoring signal to automatically monitor and determine a connection pattern of data ports, when said jack is mated with said socket; and

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a spring adapted to support said contact pin and provide tension to said contact pin when  
said contact pin makes electrical contact with said corresponding socket.